A. CLASSIFICATION OF SUBJECT MATTER IPC 7 C12N15/63 C12N15/67 C12N15/864 According to International Patent Classification (IPC) or to both national classification and IPC B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) C12N IPC 7 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practical, search terms used) EPO-Internal, BIOSIS, MEDLINE, WPI Data, PAJ, CHEM ABS Data, EMBASE, SCISEARCH C. DOCUMENTS CONSIDERED TO BE RELEVANT Relevant to claim No. Citation of document, with indication, where appropriate, of the relevant passages Category 9 1-7,11, TANG YI ET AL: "Hypoxia inducible double χ 14-18. plasmid system for myocardial ischemia 21-24 gene therapy" HYPERTENSION (BALTIMORE), vol. 39, no. 2 Part 2, February 2002 (2002-02), pages 695-698, XP002304487 ISSN: 0194-911X the whole document Patent family members are listed in annex. Further documents are listed in the continuation of box C. Special categories of cited documents: "T" later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the \*A\* document defining the general state of the art which is not considered to be of particular relevance invention "E" earlier document but published on or after the international "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone filing date \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such docu-\*O\* document referring to an oral disclosure, use, exhibition or ments, such combination being obvious to a person skilled other means document published prior to the international filing date but later than the priority date claimed "&" document member of the same patent family Date of mailing of the international search report Date of the actual completion of the international search 26/11/2004 11 November 2004

Authorized officer

Pilat, D

Fax: (+31-70) 340-3016

Name and mailing address of the ISA

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European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk Tel. (+31–70) 340–2040, Tx. 31 651 epo nl,

| ation) DOCUMENTS CONSIDERED TO BE RELEVANT  |   |  |
|---|---|--|
|   | Relevant to claim No.   |  |
| PHILLIPS M IAN ET AL: "Vigilant vector: Heart-specific promoter in an adeno-associated virus vector for cardioprotection" HYPERTENSION (BALTIMORE), vol. 39, no. 2 Part 2, February 2002 (2002-02), pages 651-655, XP002304486 ISSN: 0194-911X the whole document   | 1-11,<br>14-25  |  |
| TANG YI ET AL: "Vigilant vectors: Adeno-associated virus with a biosensor to switch on amplified therapeutic genes in specific tissues in life-threatening diseases." METHODS (ORLANDO), vol. 28, no. 2, October 2002 (2002-10), pages 259-266, XP002304488   | 1-11,<br>14-18,<br>20-25  |  |
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| HABERMAN R P ET AL: "INDUCIBLE LONG-TERM GENE EXPRESSION IN BRAIN WITH ADENO-ASSOCIATED VIRUS GENE TRANSISTOR" GENE THERAPY, MACMILLAN PRESS LTD., BASINGSTOKE, GB, vol. 5, no. 12, 1998, pages 1604-1611, XP000907528 ISSN: 0969-7128 abstract   |   |  |
| RUAN H ET AL: "A HYPOXIA-REGULATED ADENO-ASSOCIATED VIRUS VECTOR FOR CANCER-SPECIFIC GENE THERAPY" NEOPLASIA, DOYMA, BARCELONA,, ES, vol. 3, no. 3, 2001, pages 255-263, XP002909242 ISSN: 0212-9787 abstract   |   |  |
|   | PHILLIPS M IAN ET AL: "Vigilant vector: Heart-specific promoter in an adeno-associated virus vector for cardioprotection" HYPERTENSION (BALTIMORE), vol. 39, no. 2 Part 2, February 2002 (2002-02), pages 651-655, XP002304486 ISSN: 0194-911X the whole document  TANG YI ET AL: "Vigilant vectors: Adeno-associated virus with a biosensor to switch on amplified therapeutic genes in specific tissues in life-threatening diseases." METHODS (ORLANDO), vol. 28, no. 2, October 2002 (2002-10), pages 259-266, XP002304488 ISSN: 1046-2023 the whole document  PONNAZHAGAN SELVARANGAN ET AL: "Adeno-associated virus type 2-mediated transduction of murine hematopoietic cells with long-term repopulating ability and sustained expression of a human globin gene in vivo" JOURNAL OF VIROLOGY, vol. 71, no. 4, 1997, pages 3098-3104, XP002304571 ISSN: 0022-538X abstract  HABERMAN R P ET AL: "INDUCIBLE LONG-TERM GENE EXPRESSION IN BRAIN WITH ADENO-ASSOCIATED VIRUS GENE TRANSISTOR" GENE THERAPY, MACMILLAN PRESS LTD., BASINGSTOKE, GB, vol. 5, no. 12, 1998, pages 1604-1611, XP000907528 ISSN: 0969-7128 abstract  RUAN H ET AL: "A HYPOXIA-REGULATED ADENO-ASSOCIATED VIRUS VECTOR FOR CANCER-SPECIFIC GENE THERAPY" NEOPLASIA, DOYMA, BARCELONA, ES, vol. 3, no. 3, 2001, pages 255-263, XP002909242 ISSN: 0212-9787 abstract |  |

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT Relevant to claim No. Citation of document, with indication, where appropriate, of the relevant passages SMITH-ARICA JOSEPH R ET AL: "Switching on Α and off transgene expression within lactotrophic cells in the anterior pituitary gland in vivo" ENDOCRINOLOGY, vol. 142, no. 6, June 2001 (2001-06), pages 2521-2532, XP002304572 ISSN: 0013-7227 abstract MELO LUIS G ET AL: "Gene therapy strategy Α for long-term myocardial protection using adeno-associated virus-mediated delivery of heme oxygenase gene" CIRCULATION, vol. 105, no. 5, 5 February 2002 (2002-02-05), pages 602-607, XP002304573 ISSN: 0009-7322 abstract 1 P,X WO 2004/024867 A (UNIV FLORIDA) 25 March 2004 (2004-03-25) the whole document

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## INTERNATIONAL SEARCH REPORT

International application No. PCT/US2004/026195

| Box II   | Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|
| This international Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons: |  |  |  |  |  |  |  |
| 1. χ   | Claims Nos.: 21-25, 27 because they relate to subject matter not required to be searched by this Authority, namely:  |  |  |  |  |  |  |
|  | Rule 39.1(iv) PCT - Method for treatment of the human or animal body by therapy  |  |  |  |  |  |  |
| 2.   | Claims Nos.: because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically: |  |  |  |  |  |  |
| з. 🗌   | Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).   |  |  |  |  |  |  |
| Box III  | Observations where unity of invention is lacking (Continuation of item 3 of first sheet)   |  |  |  |  |  |  |
| This Inte  | ernational Searching Authority found multiple inventions in this international application, as follows:  |  |  |  |  |  |  |
| 1.   | As all required additional search fees were timely paid by the applicant, this international Search Report covers all searchable claims.   |  |  |  |  |  |  |
| 2.   | As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.   |  |  |  |  |  |  |
| з  | As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:                       |  |  |  |  |  |  |
| 4.   | No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:           |  |  |  |  |  |  |
| Remar  | k on Protest  The additional search fees were accompanied by the applicant's protest.  No protest accompanied the payment of additional search fees.   |  |  |  |  |  |  |

Information on patent family members

International Application No
/US2004/026195

| Patent document cited in search report |   | Publication<br>date |          | Patent family member(s)        | Publication<br>date      |
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| WO 2004024867                          | A | 25-03-2004          | WO<br>US | 2004024867 A2<br>2004161847 A1 | 25-03-2004<br>19-08-2004 |